

Amendments to the Claims

1. (currently amended) A speaker system operable to generate sound, comprising:
a speaker ~~located in a speaker system~~ operable to generate sound in response to an audio signal received from an audio amplifier, the speaker located in a speaker enclosure that is separate from the audio amplifier and electrically connected to the audio amplifier either through speaker cables or through a wireless communication channel; and
a communication module also located in the speaker enclosure that is also coupled to the audio amplifier through the speaker cables or wireless communication channel and that provides having high impedance at frequencies within an audio an audible range of the audio signal independently from any impedance characteristics of the speaker cables or wireless communication channel,
the communication module solely in response to being powered on by a power signal received from the audio amplifier, and without further communication signaling from the amplifier, automatically generating information that identifies electrical speaker characteristics for the speaker in the speaker enclosure and automatically transmitting the information identifying the electrical speaker characteristics back over the speaker cables or wireless communication channel to the audio amplifier ~~speaker system located in the speaker system operable to transmit information to an amplifier located separate from the speaker system in response to a carrier signal, wherein the information includes speaker characteristics.~~
2. (currently amended) The speaker system of claim 1, wherein the communication module ~~transmits information~~ communicates the electrical speaker characteristics from the speaker system to the audio amplifier across wires using two-tone modulation.
3. (canceled).
4. (currently amended) The speaker system of claim 1, wherein the speaker system further ~~comprises~~ includes a high-pass filter and rectifier operable to derive output power from the carrier power signal.
5. (canceled)

6. (currently amended) The speaker system of claim 1, wherein the communication module communicates the electrical speaker characteristics back to the audio amplifier via one of the group comprising: amplitude modulation, using phase-shift keying, and two-tone modulation.

7. (currently amended) The speaker system of claim 1, wherein the ~~information~~ electrical speaker characteristics transmitted by the communication module from the speaker system to the amplifier is transmitted in a separate frequency band from the audio signal.

8. (previously presented) The speaker system of claim 1, wherein the information transmitted by the communication module from the speaker system to the amplifier is transmitted in a frequency band that overlaps the audio signal.

9. (currently amended) A method for operating ~~a speaker system in~~ a sound system, the method comprising:

generating a carrier signal from an amplifier and sending the carrier signal to the a speaker system through a connection between the amplifier and the speaker system, wherein the speaker system is located in a speaker housing separate and remote from an amplifier housing containing the amplifier;

rectifying power from the carrier signal in a the speaker system, wherein the power is used by a communication module directly coupled to located in the speaker system, the communication module coupled to external connectors or wireless modules on the speaker housing that are used to couple the speaker system to the amplifier through a wired or wireless connection, wherein the communications module contains information identifying electrical operating parameters for the speaker system and also generates a has high impedance at frequencies within an audio range of the speaker system independently from any impedance characteristics of the wired or wireless connection; and

transmitting information identifying the electrical operating parameters out from the communication module and the speaker system through the external connectors or wireless modules to the amplifier ~~using the communication module in the speaker system~~ for as long as the carrier signal is present at the speaker system.

10. (canceled)

11. (currently amended) The method of claim 9 ~~including, the method further comprising transmitting information from the amplifier to the speaker system~~ automatically activating the communication module and communicating the electrical operating parameters back to the amplifier solely in response to receiving the rectified power without any other communication signaling from the amplifier.

12. (currently amended) The method of claim 9, wherein transmitting information from the speaker system to the amplifier is accomplished using ~~one of the group comprising: amplitude modulation; phase-shift keying; and two-tone modulation.~~

13. (original) The method of claim 9, wherein the information is transmitted in a frequency band separate from a frequency band used by an audio signal.

14. (original) The method of claim 9, wherein the information is transmitted in a frequency band that overlaps a frequency band used by an audio signal.

15. (currently amended) A speaker system, comprising:

a speaker connector operable to connect the speaker system to an amplifier located separate from the speaker system;

speaker hardware operable to generate sound from an audio signal received from the speaker connector~~{}s~~;

a high-pass filter operable to pass a high frequency carrier signal received from the speaker connector;

a rectifier operable to receive the high frequency carrier signal and convert it into a power signal; and

a communications module operable to receive the power signal from the rectifier and transmit static characteristics of the speaker hardware to the amplifier using the speaker connector, the communications module ~~having high impedance at frequencies within an audio~~

~~range of the speaker system~~ communicating the static characteristics to the amplifier using phase-shift keying.

16. (currently amended) The speaker system of claim 15, wherein the ~~speaker connector connects the speaker system to the amplifier with wires~~ communications module is a device operating inside a speaker housing that contains the speaker hardware, the communications module initiating and controlling generation of the static characteristics while providing high impedance at frequencies within an audio range of the speaker system independently of any impedance characteristics of the speaker connector that connects the speaker hardware to the amplifier or any connectors that connect the communications module to the speaker hardware.

17. (currently amended) The speaker system of claim ~~15~~ 16, wherein the ~~speaker connector connects the speaker system to the amplifiers using a wireless connection~~ communications module automatically starts transmitting the static characteristics of the speaker system back to the amplifier over the speaker connector when the module is powered on without any further communication messaging or prompting from the amplifier.